

WHAT IS CLAIMED IS:

Sub A1
1. An enclosure for underground use having a plurality of prefabricated panels formed of a fiber resinous composite matrix, comprising:
3 a plurality of interconnecting vertical panels;
4 a floor panel attached to a lower end of the vertical panels; and
5 a ceiling panel attached to an upper end of the vertical panels, wherein said vertical,
6 floor, and ceiling panels include opposing substantially planar sheets attached to a plurality of
7 spaced support members disposed between the sheets.

Sub A2
1. 2. The enclosure of claim 1, wherein the plurality of vertical panels comprises opposing longitudinal wall panels and opposing lateral wall panels.

Sub A2
3. The enclosure of claim 2, further comprising a plurality of fiber resin angle members for bonding the longitudinal wall panels to the lateral wall panels at perpendicular interconnections therebetween.

Sub B1
1. 4. The enclosure of claim 2, wherein the plurality of vertical panels further comprises a bulkhead panel.

Sub B1
1. 5. The enclosure of claim 2, wherein the longitudinal wall panels and the lateral walls
2 panels include an overlapping joint for attaching to the floor panel and the ceiling panel.

Sub B2
1. 6. The enclosure of claim 2, further comprising a plurality of connectors for joining adjacent lateral wall panels and adjacent longitudinal wall panels, wherein the lateral wall
2 panels and the longitudinal wall panels include ends for interconnecting with said connectors.

Sub B2
1. 7. The enclosure of claim 6, wherein the connectors are bands of fiberglass bonded to
2 the ends of adjacent lateral wall panels and adjacent longitudinal wall panels.

Sub B1

1 8. The enclosure of claim 6, wherein the connectors are interposed between ends of the
2 adjacent lateral wall panels and adjacent longitudinal wall panels (such a portion of the planar
3 sheets are received and bonded to the connectors.)

Sub B1

1 9. The enclosure of claim 1, wherein said vertical, floor, and ceiling panels comprise, by
2 weight at least 40% fiberglass.

Sub B1

1 10. The enclosure of claim 1, wherein said vertical wall panels, said floor panels, and
2 said ceiling panels are unitarily formed.

Sub B1

1 11. The enclosure of claim 1, wherein the opposing sheets of the vertical panels include
2 an outer sheet on an exterior of the enclosure and an inner sheet in an interior of the
3 enclosure.

1 12. A pultruded panel for constructing a buried vault, comprising:
2 a first sheet being substantially planar;
3 a second sheet being substantially planar; and
4 a plurality of spaced support members fixedly connected between the first and second
5 sheets.

1 13. The panel of claim 12, wherein the first and second sheets are connected to the support
2 members by an adhesive bonding.

1 14. The panel of claim 12, wherein the first and second sheets are integrally formed with the
2 support members.

1 15. The panel of claim 12, wherein the each support member includes at least a web and
2 opposing surfaces for the sheets to connect thereto, the web extending between the opposing
3 surfaces.

1 16. The panel of claim 12, wherein the panel includes opposing longitudinal ends that are
2 offset for joining to an abutting panel in the longitudinal direction.

1 17. The panel of claim 12, wherein the panel comprises, at least 40% fiberglass by weight.

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1 18. A method of making an enclosure for underground use, comprising the steps of:
2 pultruding a plurality of panel members having a fiber resin composition;
3 interconnecting the panel members together to form a plurality of panels; and
4 bonding the panels to form the enclosure.

1 19. The method of claim 18, further comprising the step of pultruding a substantially
2 planar sheet.

1 20. The method of claim 19, further comprising the step of pultruding a support member
2 that attaches to the planar sheet.

1 21. The method of claim 20, further comprising the step of pultruding an angle member.

1 22. The method of claim 18, wherein the step of interconnecting includes bonding the
2 panels with an adhesive.

1 23. The method of claim 18, wherein said pultruding step includes pultruding a plurality
2 of longitudinal and lateral wall panels, a top panel, and a floor panel.

1 24. The method of claim 23, further comprising the step of forming an access in a wall
2 panel.

1 25. The method of claim 18, wherein said pultruding step includes pultruding said panel
2 members having a fiber resin composition of at least 40% fiberglass by weight.

1 26. The method of claim 25, wherein said pultruding step includes pultruding said panel
2 members having a fiber resin composition of at least 50% fiberglass by weight.

1 27. The method of claim 18, wherein said pultruding step includes pultruding said panel
2 members having a fiber resin composition of at least 40% fiber material by weight

1 28. A method of making an vault enclosure, comprising the steps of:
2 providing a plurality of panel sections having a fiber reinforced composition wherein
3 the panels sections include a plurality of wall sections;
4 assembling the panel sections to form the vault enclosure;
5 removing a wall section from the vault enclosure prior to installation on a work site;
6 integrating equipment into the vault enclosure; and
7 replacing the wall section in the vault enclosure.

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